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Learning Assessment in Noncredit Continuing Education

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Abstract: While program- and institution-level learning assessment in higher education has received substantial attention, much less emphasis has been placed on the assessment of learning in noncredit continuing education in higher education institutions. Learning assessment is sparse in this area because these learning experiences may be shorter in duration than credit courses, are commonly taught by field experts, and there are limits to the time and resources the higher education institution or other provider invests in conducting learning outcome assessment. This paper describes assessment recommendations in the noncredit continuing education space, with concrete examples in three areas: learning outcome statements, surveys with learning outcome-focused questions, and direct assessment of learning.

Keywords: *learning assessment, noncredit courses, continuing education, professional development*

Introduction

Since the mid-1980s, higher education institutions have emphasized program- and institution-level learning assessment, primarily because of professional and institutional accreditation requirements (El-Khawas, 2001; Ewell, 2001, 2002). Seminal books on program learning assessment (Banta & Palomba, 2015; Maki, 2010; Suskie, 2018) and those that focus on individual student and course-level learning assessment (Angelo & Cross, 1993; Brennan, 2006; Secolsky & Denison, 2012; Walvoord & Anderson, 2009) describe the philosophical, technical, and practical aspects of formal learning assessment. While this robust literature and well-established assessment processes exist for credit-bearing courses and programs, less has been written about the assessment of learning in noncredit continuing education in higher education institutions. We define noncredit continuing education as organized and systematic educational activities that do not lead towards a degree or credential (see also Jarvis, 1987; Manheimer, 2007). These include the following:

- continuing professional competency and continuing professional education required for maintaining licensure;
- skill and knowledge building aimed at career advancement or change;
- personal enrichment.

The audience for noncredit continuing education is sometimes selected population groups, such as a particular group of working professionals (e.g., occupational therapist assistants, engineers).

Nearly three decades ago, Seybert (1995) noted the lack of attention to the assessment of noncredit continuing education offerings. That status continued: a national survey (D'Amico et al., 2016) of noncredit courses in community colleges did not include any questions about student learning and learning outcomes (i.e., the knowledge, skills, and/or attitudes that learners should be able to demonstrate upon completion). Surveys that measure the learner's satisfaction continue to be prevalent in these educational formats, while direct learning assessments, including observation, reflection, and portfolios, are less common (see Institute of Medicine, 2010; Cant & Levett-Jones, 2021). Noncredit continuing education courses and programs that end with a credential, such as a competency-based digital badge or certification, are plentiful (Albert & Crawford, 2021); however, there is little to no evidence in the literature that other noncredit courses and programs evaluate student learning outcomes/competencies (McConochie & Clagett, 1991). We believe learning assessment is sparse because these learning experiences are typically shorter durations, commonly taught by field experts, and enroll learners with varying motivations (personal enrichment, career advancement); thus, higher education institutions choose to not invest their limited time and resources in conducting learning outcome assessment for noncredit continuing education.

Because noncredit continuing education at higher education institutions is common, in-demand, and often fee-based (Brooks, 2022; Spitalniak, 2023), we suggest employing an assessment process to guide the curriculum and pedagogy and improve student learning outcomes as needed. Assessment in noncredit courses and programs can provide instructors and institutions with helpful information on effectiveness (i.e., what is working well and not well).

This paper discusses learning outcome statements, surveys with learning outcome-focused questions, and direct assessment of learning in the noncredit continuing professional education space. We draw upon our experiences working at a research-based public institution of higher education. Since 2010, the first author has regularly evaluated the extent to which learners in noncredit professional development have achieved the learning outcomes and assisted others in developing and implementing learning outcomes assessments in noncredit continuing education programs. The second author has implemented and evaluated noncredit professional development programs for higher education faculty and K-12 teachers, with a focus on online learning since 2003. The third author has chaired a continuing education department that offered noncredit training and collaborated on learning outcome assessment strategies for continuing education.

Learning Outcome Statements

Regardless of the varied lengths of noncredit programs, ensuring clear and measurable learning outcomes is critical. The success of the professional development programs offered by the University of Hawai'i (UH) Online Innovation Center and the UH Mānoa Assessment and Curriculum Support Center depended on having clear learning outcomes that were feasible to measure. Their assessment strategies also needed to be supported by effective teaching strategies. The literature corroborates the idea that meaningful student learning is supported through the direct linkage of learning outcomes to assessment methods (Crespo et al., 2010; REL Southwest, 2007; Sewagegn, 2020).

When creating learning outcomes for noncredit continuing education programs, the following considerations may be helpful:

- The time learners engage with a noncredit course or program will impact the number and complexity of learning outcomes. A realistic number of outcomes should be created to minimize overwhelming the learners and instructors.
- The learners' prior background knowledge and experiences should be considered when creating learning outcomes. Multiple frameworks, such as Bloom's revised taxonomy (Anderson & Krathwohl, 2001), the four domains of the Medicine Wheel (LaFever, 2016), and Fink's (2013) principles of significant learning, can be referenced during the creation of learning outcomes. For example, if utilizing Bloom's revised taxonomy, learners with minimal or no background knowledge may benefit from learning outcomes that utilize verbs from the lower levels of the taxonomy (e.g., remember and understand). Learners with prior knowledge or advanced skills likely benefit from learning outcomes that integrate verbs from the higher levels of the taxonomy (e.g., evaluate, create).
- Learners benefit from clear expectations through specific, measurable, achievable, relevant, and time-bound (SMART) outcomes (Doran, 1981). Set and announce these at the beginning of their learning experience.
- If the program coordinator is charged with writing the learning outcomes, collaboration and communication with the instructor(s) teaching the course are essential.
- Learner involvement in developing learning outcomes is a recommended equity-minded practice; however, given the limited duration of most noncredit continuing education courses, the instructors can ask for learner feedback on the outcomes instead.

We provide two examples of these considerations. First, in a noncredit professional development program on redesigning a course for an accelerated distance learning format for faculty with prior knowledge about teaching and learning, outcomes can be set at higher cognitive levels (Table 1). Second, in a noncredit professional development program on assessment leadership for faculty with minimal experience with program learning assessment, an appropriate, foundational learning outcome is to identify applicable learning assessment principles and practices (Table 2).

Table 1

Course Learning Outcomes from a Higher Education Noncredit Professional Development Program (20 hours Synchronous plus Asynchronous Requirements)

Course Learning Outcomes (CLO): University of Hawai'i Online 5-Week Professional Development

CLO 1	Develop an online 5-week accelerated course in the campus's learning management system that aligns with Quality Matter Standards and is in compliance with the campus's Distance Learning rules and regulations.
CLO 2	Utilize relevant technologies to enhance student engagement and active learning.

CLO 3	Apply best practices for online course design, development, and delivery.
CLO 4	Contribute to a professional learning community with other faculty and instructional designers through opportunities for networking, collaborative conversations, and peer support.

Table 2

Institute Outcomes of a Six-day Institute for Faculty in a Professional Development Program (18 hours Synchronous plus Asynchronous Requirements)

Institute Outcomes

1. Identify applicable learning assessment principles and practices.
 2. Develop a learning assessment plan to implement after the Institute.
 3. Employ facilitation techniques to guide faculty discussions and collaborative projects.
-

In both examples, the outcomes specify an action, generate measurable products or performances, are relevant to the professional development, and occur within the professional development sessions (time-bound).

Learning Outcome-Focused Surveys

In noncredit education, surveys are, based on our experiences, common practice and conducted at the end of a course or program to obtain the participants' level of satisfaction with a completed training, the instructor, and their teaching or to gather feedback on the effectiveness of marketing strategies ("How did you hear about this course?"). These surveys' results can help continuing education managers, marketing professionals, and instructors review their educational offerings and, if needed, improve the course logistics, curriculum, teaching, or marketing strategies. A benefit of these surveys, especially if conducted online, is that they are easy for the learners to complete, quick to set up, and cost-effective. While such surveys can be an effective and rapid quality-control tool for those who design or deliver noncredit training, they typically do not evaluate the student learning outcomes of a specific course and program. This is especially interesting since learning outcomes are commonly listed in the course or program announcement in many higher education institutions' noncredit continuing education programs.

In the following, we present ideas on how learning outcomes can be assessed with a survey. It is important to note that these are subjective—based on the learner's perceptions of their learning—not a direct assessment of learning. However, well-designed survey questions can be a first step in incorporating learning outcome assessment into noncredit courses and programs:

- Select one or more of the course/program learning outcomes to be investigated in a suitable online survey tool (we recommend an online tool because of the efficiency in data analysis).

- In the survey instrument, questions in which learners self-rate their learning achievement on the learning outcomes are added (see examples in Table 3 and Figure 1).
- After administering the survey to the learners, the analysis of the data, which does not have to be complicated, will reveal the learners' perceptions of their learning outcome achievement/competency.
- If learners report a low level of learning outcome achievement, reviewing the instructor's teaching method and curriculum and gathering pertinent information about the learners are crucial to improving the course and revising learning outcomes.
- Re-administering the survey regularly—such as each time or every other time the course is taught—to monitor the teaching effectiveness is recommended.

In noncredit continuing education courses with severe time constraints (e.g., 1- to 3-hour stand-alone courses), learners' self-reports of learning are often an ideal assessment method and can be efficient and effective. The retrospective pre-post survey (Davis, 2003; Howard et al., 1979; Rockwell & Kohn, 1989) is a good alternative to a pre-post survey design because it can shed light on the learners' perception of the extent to which the course/program directly contributed to their knowledge and skill (see Table 3 example C and Figure 1).

Table 3

Learning Outcome-Focused Survey Question Examples

Learning outcome: Apply the principles of effective business writing in composing business-based documents

Survey question examples:

- A. How much do you agree or disagree with the statement: The course taught me how to apply the principles of effective business writing in composing business-based documents.
Strongly disagree. Disagree. Neither agree nor disagree. Agree. Strongly agree.
 - B. To what extent did this course teach you how to apply the principles of effective business writing in composing business-based documents?
To no extent. A little. A moderate amount. A great extent.
 - C. Before the course and now, after the course, rate your skill in applying the principles of effective business writing in composing business-based documents.
Before the course: None. A little. A moderate amount. A lot.
Now, after the course: None. A little. A moderate amount. A lot.
-

Figure 1

Example of a Retrospective Learning-focused Survey Question

* 5) What is your level of integrating technologies in course design to enhance student engagement and/or active learning before and after the UH Online 5-Week PD?

Level of Technology Integration	Before the PD	After the PD (Now)
	<input type="text"/> No integration Low integration Moderate integration High integration	<input type="text"/> No integration Low integration Moderate integration High integration

Direct Assessment of Learning

The principles for selecting and designing a direct assessment of learning remain the same in credit and noncredit contexts, with a few caveats for the shorter duration of noncredit education courses or programs. A direct assessment of learning involves an expert's evaluation of the quality of a product or performance by the learner.

First, given that the instrument must be practical to administer and evaluate in short and medium-duration programs such as in a personal enrichment course or a professional development workshop, a viable technique is to add one to three knowledge or skill quiz/exam-type questions to a course (satisfaction) survey. In other words, the end-of-course survey is partly an ungraded quiz/test, which provides a direct assessment of the learning outcomes. The end-of-course survey's quiz-type questions can be open- and closed-ended. Below are examples of quiz-type questions for an end-of-course survey instrument:

- What are three faculty engagement strategies that increase the likelihood of faculty using assessment results? (Please be specific.)
- What is a non-jargon definition of a curriculum map?
- How does the camera aperture affect the depth of field? (Answer in 1-2 sentences.)
- What does "\$" mean in an Excel formula?
- What are three techniques to reduce public speaking anxiety?
- What are two strategies to employ culturally relevant pedagogy? (Answer in 1-3 sentences.)

The learners complete the survey near the end of the course; the total time needed for survey administration is usually less than six minutes. The noncredit course's instructor is the ideal person to evaluate the responses to the survey instrument's open-ended quiz-type questions. To keep the time burden low, we suggest using the simplest scoring system: "Yes, good enough" or "No, insufficient" (a 2-point scale). These results, along with any closed-ended quiz-like question results, are quick to compile and can then be summarized to provide information to the instructor and program coordinator to be used for course and program improvement purposes. Unless administered online using an app such as Google Forms, which can let the learner know if an answer is correct or incorrect, the learner does not receive their results.

In medium-duration courses or programs (e.g., 4-20 hours), the instructor can plan activities in which the learners practice skills or competencies that directly address a learning outcome. This allows the instructors to evaluate the learner’s performance by observing or collecting products generated from the practice. For example, a multi-day professional development workshop on assessment leadership for faculty members can have a combination of direct assessment of learning activities (see Table 4).

Table 4*Sample Combination of Direct Assessment of Learning Activities*

Learning outcome	Direct assessment of learning activities
Identify applicable learning assessment principles and practices	Learners complete a matching activity in which they identify applicable principles and practices given their planned project.
Develop a learning assessment plan	Learners draft: (a) project title; (b) project goals; (c) key faculty engagement strategy; and (d) timeline. Upload to shared cloud drive and present in a 5-minute talk followed by brief Q&A.
Employ facilitation techniques to guide faculty discussions and collaborative projects	Learners role-play being a facilitator and a note taker in a group meeting on an assessment issue (e.g., adapt a rubric); their efforts are observed, they receive peer feedback, and the group notes/products are analyzed.

For personal enrichment courses or programs, activities and products vary greatly depending on the course content (see Table 5).

Table 5*Examples of Direct Assessment of Learning*

General learning outcome	Direct assessment of learning
Use a tool such as a camera, computer software, social media platforms	<ul style="list-style-type: none"> • Camera. Illustrate shallow and deep depth of field by taking 2 pictures of the same object, one with shallow and one with deep depth of field. Upload to instructor. • Software. Use the index match formula in Excel to combine the data on two sheets for the “userid” field. Upload file to instructor.

	<ul style="list-style-type: none"> • Social media. Create an Instagram post as part of creating a strong social media brand presence. Share the post with the instructor and classmates.
<p>Perform an action demonstrating a skill such as coding, cooking, massage, conflict management, oral presentation.</p>	<ul style="list-style-type: none"> • Front-end web development. Use HTML and CSS to complete a website. Share website instructor and classmates. • Cooking. Bloom spices in fat. Show result to instructor. • Conflict management. Diagnose a workplace conflict and state why it is or is not worth addressing. Show work to the instructor and classmates. • Speaking in public. Give a presentation that uses inclusive, accurate language and is audience appropriate. Present in front of the instructor and classmates.
<p>Demonstrate understanding, analysis, application, synthesis, judgment</p>	<ul style="list-style-type: none"> • Present or submit a product to the instructor. Products include <ul style="list-style-type: none"> ○ A slide deck for a presentation with 3-5 slides ○ A project plan ○ A comparison grid; pro-con grid ○ A written determination or judgment along with a short justification

Second, to ensure validity/credibility and reliability/trustworthiness, the instructor and/or program coordinator can get help from measurement or learning science experts. Hence, the activity’s project is likely to accurately provide information on the student learning outcome(s). The expert assistance can include guidance on question and assignment wording, scoring or coding text responses and calculating descriptive statistics, generating data visualizations, and drawing conclusions. If experts are not readily available, we recommend consulting other instructors and several learners: ask them to answer questions such as these: Are these instructions clear? Are these directly and explicitly tied to the learning outcome? Will the products let me know if the learners have accomplished a particular learning outcome?

Third, the method needs to be as fair as possible: one that does not advantage or disadvantage a particular group. Some commonly recommended techniques for fairness are hindered given the time constraints in short (1-3 hours) and medium duration (4-20 hours) noncredit courses or programs. For example, allowing the learners multiple opportunities to demonstrate their learning and offering them different ways to demonstrate learning are extremely difficult. Feasible approaches include transparency by providing a syllabus or course outline that indicates the explicit connections between the curriculum, learning outcomes, and assessment method and critically reflecting to confirm the connections and fairness from a diversity lens.

Fourth, to the extent possible, the activity and its corresponding product benefit the learner. For example, asking for products that the learners can use in another setting or that have value beyond the course or program setting. While an end-of-course survey's quiz-type questions will not have that benefit, the products listed above do. This may be one area where the noncredit courses already lend themselves because many focus on an applicable skill or knowledge.

Conclusion

Learning outcomes assessment is a process aimed at providing instructors, course coordinators, program directors, learners, and other stakeholders with information to guide future decisions. The dearth of the assessment of learning in noncredit continuing education is a missed opportunity. We provided examples of how to effectively evaluate student learning outcomes in noncredit continuing education courses and programs by focusing on realistic outcomes, course or program duration, and the learners' prior knowledge; effectively using end-of-course surveys by asking learners to self-report learning and learning gains and including quiz-type questions; embracing direct assessment of learning by having learners produce work that demonstrates their learning and can be evaluated by the instructor using a 2-point scoring system.

The motivation of learners in noncredit courses and programs typically varies greatly and is influenced by their reason for enrolling (Moustakas, 2018; Roshier, 1989): personal enjoyment or personal enrichment; demonstrating completion to an external audience for continuing education requirements; or helping with career advancement or career change. We suggest leveraging micro-credentials or alternative digital credentials as a strategy to motivate learners to gain the expected experiences, skills, and competencies in the noncredit continuing education course or program; the digital credential can be verified and displayed to current and potential employers (Breckenridge et al., 2022; Gibson et al., 2015). The digital credential relies on the alignment of the learning outcomes and direct assessment of these outcomes.

In sum, well-crafted learning outcomes, learning outcome-focused survey questions, and appropriate direct assessment of learning are feasible in noncredit courses or programs. We have successfully used learning assessment in our noncredit continuing education courses, encouraging others to do the same. Collectively, we have implemented improvement plans for subsequent professional development courses based on our learning assessment results, provided summarized learning assessment results as evidence of quality professional development offerings for personnel decisions, and used learning assessment reports as part of an argument for resources. It is worth the effort.

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